



PATENT
Attorney Docket No. MOK-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Oh
SERIAL NO.: 10/780,500 GROUP NO.: Not yet assigned
FILING DATE: February 17, 2004 EXAMINER: Not yet assigned
TITLE: Modeling and Editing Imaging Panoramas

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. Copies of the patents and publications are enclosed.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or

☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**



☐ the requisite Statement is below, **AND**

☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.

It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:

- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

Respectfully submitted,

Steven J. Frank
Attorney for the Applicant
Testa, Hurwitz, & Thibault, LLP
High Street Tower
125 High Street
Boston, Massachusetts 02110

Date: March ~~22~~, 2004
Reg. No. 33,497

Tel. No.: (617) 310-8108
Fax No.: (617) 248-7100

FORM PTO – 1449		ATTORNEY DOCKET NO.: MOK-002
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Oh
		SERIAL NO.: 10/780,500 GROUP: Not yet assigned
		FILING DATE: February 17, 2004
OTHER ART, JOURNAL ARTICLES, ETC.		
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)	
	C1	Agrawala, M., Beers, A. C., and Levoy, M. 1995. 3d Painting on Scanned Surfaces. In 1995 Symposium on Interactive 3D Graphics, ACM SIGGRAPH, pp. 145–150. ISBN 0-89791-736-7.
	C2	ALLIAS. http://www.alias.com
	C3	APPLE. http://apple.com/quicktime
	C4	Bertalmio, M., Sapiro, G., Caselles, V., and Ballester, C. 2000. Image Inpainting. In Proceedings of ACM SIGGRAPH 2000, ACM Press / ACM SIGGRAPH / Addison Wesley Longman, Computer Graphics Proceedings, Annual Conference Series, 417–424. ISBN 1-58113-208-5.
	C5	Blanz, V. and Vetter, T.. A Morphable Model for the Synthesis Of 3d Faces. Proc. Of SIGGRAPH, 1999
	C6	Boivin, S., and Gagalowicz, A. 2001. Image-based Rendering of Diffuse, Specular and Glossy Surfaces from a Single Image. In Proceedings of ACM SIGGRAPH 2001, ACM Press / ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, pp. 107–116. ISBN 1-58113-292-1.
	C7	Buehler, C., Bosse, M., McMillan L., Gortler, S.J. and Cohen, M.F. 2001. Unstructured Lumigraph Rendering. In Proceedings of ACM SIGGRAPH 2001, ACM Press / ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, pp. 425–432. ISBN 1-58113-292-1.
	C8	CANOMA. Http://www.canoma.com
	C9	Chen, M. 2001. Interactive Specification and Acquisition of Depth from Single Images. Master's thesis, Massachusetts Institute of Technology.
	C10	Chen, E. and Williams, L. View Interpolation for Image Synthesis. In Proc. Of SIGGRAPH, 1993.
	C11	Chen, E. Quicktime VR – An Image-Based Approach to Virtual Environment Navigation. Proc. Of SIGGRAPH, 1995.
	C12	Chuang, Y. Y., Curless, B., Salesin, D. H., and Szeliski, R. 2001. A Bayesian Approach to Digital Matting. IEEE Computer Vision and Pattern Recognition
	C13	Cohen, M. F., Shenchang, E. C., Wallace, J. R., and Greenberg, D. P. 1988. A Progressive Refinement Approach to Fast Radiosity Image Generation. In Computer Graphics (Proceedings of SIGGRAPH 1988), vol. 22, 4, pp. 75-84 (1988).
	C14	Criminisi A., Reid, I., and Zissman, A. 1999. Single View Metrology. International Conference on Computer Vision, pp. 434-442.
	C15	Debevec, "Light Probe Image Gallery", http://www.debevec.org/probes
	C16	Debevec, P. and Malik, J. Recovering High Dynamic Range Radiance Maps from Photographs. Proc. Of SIGGRAPH, 1997.
	C17	Debevec, "The Campanile Movie", SIGGRAPH 97 Electronic Theater (1997).

FORM PTO – 1449		ATTORNEY DOCKET NO.: MOK-002
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Oh
		SERIAL NO.: 10/780,500 GROUP: Not yet assigned
		FILING DATE: February 17, 2004
C18	Debevec, P. Rendering Synthetic Objects into Real Scenes: Bridging Traditional and Image-based Graphics with Global Illumination and High Dynamic Range Photography. In Proc. Of SIGGRAPH, 1998.	
C19	Debevec, P., Taylor, C., and Malik, J. Modeling and Rendering Architecture from Photographs: A hybrid geometry- and image-based approach. In Proc. of SIGGRAPH 96, 1996.	
C20	Debevec, P.E., Yu, Y., and Borshukov, G.D. 1988. Efficient View-Dependent Image-Based Rendering with Projective Texture-Mapping. In Eurographics Rendering Workshop 1998, Springer, Wien/Eurographics, Vienna, Austria, pp. 105-116 ISBN 3-211-8323-0.	
C21	Desbrun, M., Meyer, M., Schröder, P., and Barr, A. H. 2000. Anisotropic Feature-Preserving Denoising of Height Fields and Bivariate Data. In Graphics Interface, pp. 145–152. ISBN 1-55860-632-7.	
C22	DISCREET. http://www.discreet.com .	
C23	Drettakis, G., Robert, L., and Bounouze, S. Interactive Common Illumination for Computer Augmented Reality. Eurographics Rendering Workshop, 1997.	
C24	Drettakis, G., and Sillion, F. X. 1997. Interactive Update of Global Illumination Using a Line-Space Hierarchy. In Proceedings of SIGGRAPH 1997, ACM SIGGRAPH / Addison Wesley, Los Angeles, California, Computer Graphics Proceedings, Annual Conference Series. ISBN 0-89791-896-7.	
C25	Durand, F., and Dorsey, J. 2002. Fast Bilateral Filtering for the Display of High-Dynamic-Range Images. In Proceedings of SIGGRAPH 2002, ACM SIGGRAPH / Addison Wesley Longman, Computer Graphics Proceedings, Annual Conference Series, To Be Published.	
C26	Elder, J. and Goldberg, R. Image Editing in the Contour Domain. IEEE Trans. on Pattern Analysis and Machine Intelligence, 23(3), 2001.	
C27	Faugeras, O., Laveau, S., Robert, L., Csurka, G., and Zeller, C. 3-d reconstruction of Urban Scenes from Image Sequences. In A. Gruen, O. Kuebler, and P. Agouris, editors, Automatic Extraction of Man-Made Objects from Aerial and Space Images. Birkhauser, 1995.	
C28	Fournier, A. Gunawan, A., and Romanzin, C. Common Illumination between Real and Computer Generated Scenes. Graphics Interface, 1993.	
C29	THE GIMP. http://gimp.org	
C30	Gleicher, M. 1995. Image Snapping. Proceedings of SIGGRAPH 1995 (August), pp. 183–190. ISBN 0-201-84776-0. Held in Los Angeles, California.	
C31	Gortler, S., Grzeszczuk, R., Szeliski, R. and Cohen, M. The Lumigraph. In Proc. Of SIGGRAPH, 1996	
C32	Guillou, E., Meneveaux, D., Maisel, E. and Bouatouch, K. 2000. Using vanishing points for camera Calibration and course 3d reconstruction from a single image. The Visual Computer 16, 7, pp. 396-410 ISSN 0178-2789 (2000).	
C33	Hanrahan, P. and Haeberli, P. Direct WYSIWYG Painting and Texturing on 3d Shapes. Proc. of SIGGRAPH, 1990.	
C34	Heckbert, P. S. 1989. Fundamentals of Texture Mapping and Image Warping. Master's thesis, June 17, 1989.	
C35	Horn, "Height and Gradient from Shading", Massachusetts Institute of Technology (1989).	

FORM PTO – 1449		ATTORNEY DOCKET NO.: MOK-002
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Oh
		SERIAL NO.: 10/780,500 GROUP: Not yet assigned
		FILING DATE: February 17, 2004
	C36	Horry, Y., Anjyo, K., and Arai, K. Tour into the Picture: Using a Spidery Mesh Interface to Make Animation from a Single Image. In Proc. of SIGGRAPH 97, 1997.
	C37	The IESNA Lighting Handbook, Reference and Applications, 9th ed. IESNA. 9th ed., I.E.S. of North America (2000).
	C38	Igarashi, T., Matsuoka, S., and Tanaka, H. Teddy: A Sketching Interface for 3D Freeform Design. In Siggraph, Los Angeles, 1999.
	C39	Igehy, H., and Pereira, L. 1997. Image Replacement through Texture Synthesis. In IEEE International Conference on Image Processing.
	C40	ILLUSTRATOR. http://www.adobe.com/products/illustrator
	C41	IPIX. http://ipix.com
	C42	ISEE. http://iseemedia.com
	C43	Jobson et al., "A Multiscale Retinex for Bridging the Gap Between Color Images and the Human Observation of Scenes", IEEE Transactions on Image Processing, Special Issue on Color Processing (July 1997).
	C44	Kang, S. Depth Painting for Image-based Rendering Applications. Tech. report, CRL, Compaq Cambridge Research Lab, 1998. http://www.research.microsoft.com/Users/sbkang/publications/index.html .
	C45	Lévy, B. and Mallet, J.L. Non-Distorted Texture Mapping for Sheared Triangulated Meshes. In Proc. of SIGGRAPH, 1998.
	C46	Laveau, S. and Faugeras, O. 3-D Scene Representation as a Collection of Images and Fundamental Matrices. In Proc. of 12th Int. Conf. on Pattern Recognition, volume 1, pages 689–691, 1994.
	C47	Levoy, M. and Hanrahan, P. Light Field Rendering. In Proc. of SIGGRAPH, 1996.
	C48	Liebowitz, D., and Zisserman, A. 1998. Metric Rectification for Perspective Images of Planes. In Proceedings of the Conference on Computer Vision and Pattern Recognition, 1998.
	C49	Liebowitz, D., Criminisi, A., and Zosserman A. Creating Architectural Models from Images. In Proc. Of Eurographics, Forum 18, 3 (September 1999).
	C50	Loscos, C., Drettakis, G., and Robert, L. Interactive Virtual Relighting of Real Scenes. IEEE Trans. on Visualization and Computer Graphics, 6(3), 2000.
	C51	Loscos, C., Frasson, M.C., Drettakis, G., Walter, B., Granier, X., and Poulin, P. Interactive Virtual Relighting and Remodeling of Real Scenes. Eurographics Rendering Workshop, 1999.
	C52	Mallet, J.L. Discrete Smooth Interpolation. ACM Trans. on Graphics, 8(2):121–144, 1989.
	C53	Mark, W. 1999. Post-Rendering 3D Image Warping: Visibility, Reconstruction, and Performance for Depth-Image Warping. PhD thesis, University of North Carolina at Chapel Hill.
	C54	Mark, W., McMillan, L., and Bishop, G. Post-rendering 3D Warping. In ACM Symp. on Interactive 3D Graphics, 1997.
	C55	Matusik, W., Buehler, C., Raskar, R., Gortler, S. J., AND McMillan, L. 2000. Image-Based Visual Hulls. In Proceedings of ACM SIGGRAPH 2000, ACM Press / ACM SIGGRAPH / AddisonWesley Longman, Computer Graphics Proceedings, Annual Conference Series, pp. 369–374. ISBN 1-58113-208-5. Pp. 369–374. ISBN 1-58113-208-5.

FORM PTO – 1449		ATTORNEY DOCKET NO.: MOK-002
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Oh
		SERIAL NO.: 10/780,500 GROUP: Not yet assigned
		FILING DATE: February 17, 2004
	C56	McMillan, L. 1995. A List-Priority Rendering Algorithm for Redisplaying Projected Surfaces. Tech. Rep. TR95-005, 14,.
	C57	McMillan, L. and Bishop, G. Plenoptic Modeling: An Image-Based Rendering System. In Proc. of SIGGRAPH, 1995.
	C58	McMillan, L.. An Image-Based Approach to Three-Dimensional Computer Graphics. PhD thesis, U. of North Carolina, Chapel Hill, 1997.
	C59	Mortensen, E. N., and Barrett, W. A. 1995. Interactive Segmentation with Intelligent Scissors. In Proceedings of SIGGRAPH 1995, ACM SIGGRAPH / Addison Wesley, Los Angeles, California, Computer Graphics Proceedings, Annual Conference Series, pp. 191–198. ISBN 0-201-84776-0.
	C60	Nayar , S. K. and Bolle, R. M. Computing Reflectance ratios from an Image. Pattern recognition, 7, 1993.
	C61	Oh, B. M., Chen, M., Dorsey, J., and Durand, F. 2001. Image-Based Modeling and Photo Editing. In Proceedings of ACM SIGGRAPH 2001, ACM Press / ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, pp. 433–442. ISBN 1-58113-292-1.
	C62	Perona, P. and Malik, J. Scale-Space and Edge Detection Using Anisotropic Diffusion. IEEE Trans. on Pattern Analysis and Machine Intelligence, 12(7):629–639, July 1990.
	C63	PHANTOM. http://sensable.com/products/phantom_ghost/phantom.asp
	C64	PHOTOMODELER. http://photomodeler.com
	C65	PHOTOSHOP. http://adobe.com/products/photoshop/main.html
	C66	PIXOLOGIC. http://www.pixologic.com .
	C67	Porter, T., and Duff, T. 1984. Compositing Digital Images. In Computer Graphics (Proceedings of SIGGRAPH 1984), vol. 18, pp. 253–259.
	C68	Poulin, P., Quimet, M., and Frasson, M.C. Interactively Modeling with Photogrammetry. In Eurographics Workshop on Rendering, 1998.
	C69	Poulin, P., Ratib, K., and Jacques, M. Sketching Shadows and Highlights to Position Lights. In Proc. of Computer Graphics International 97, 1997.
	C70	Press, W., Teukolsky, S., Vetterling, W. and Flannery, B. 1992. Numerical Recipes, 2nd ed. Cambridge University Press, pp. 393, 683-688, 825 (1992).
	C71	Pulli, K., Cohen, M., Duchamp, T., Hoppe, H., Shapiro, L., and Stuetzle, W. 1997. View-based Rendering: Visualizing Real Objects from Scanned Range and Color Data. In Rendering Techniques 1997 (Proceedings of the Eighth Eurographics Workshop on Rendering), Springer Wien, New York, NY, J. Dorsey and P. Slusallek, Eds.
	C72	Rangaswamy, S. 1998. Interactive Editing Tools for Image-Based Rendering Systems. Master's thesis, Massachusetts Institute of Technology.
	C73	REALVIZ. Image modeler. http://realviz.com
	C74	RIGHTHEMISHPERE. http://righthemisphere.com
	C75	Roxio. http://www.roxio.com/en/products/enterprise_solutions/photosuite/features.jhtml
	C76	Ruzon, M. A., and Tomasi, C. 2000. Alpha Estimation in Natural Images. IEEE Computer Vision and Pattern Recognition.

FORM PTO – 1449 INFORMATION DISCLOSURE STATEMENT		ATTORNEY DOCKET NO.: MOK-002 APPLICANT(S): Oh SERIAL NO.: 10/780,500 GROUP: Not yet assigned FILING DATE: February 17, 2004
	C77	Segal, M., Korobkin, C., van Widenfelt, R., Foran, J. and Haerberli, P. Fast Shadows and Lighting Effects Using Texture Mapping. Proc. of SIGGRAPH, 1992.
	C78	Seitz, S. and Kutulakos, K. Plenoptic Image Editing. In Proc. 5th Int. Conf. on Computer Vision, 1998.
	C79	Seitz, S. M., and Dyer, C. R. 1997. Photorealistic Scene Reconstruction by Voxel Coloring, Journal of Computer Vision, 35,2, pp. 1-32 (1999).
	C80	Semple et al., "Algebraic Projective Geometry", Oxford at the Clarendon Press (1952).
	C81	Sethian, J. A. 1999. Level Set Methods and Fast Marching Methods. Cambridge University Press, Cambridge, UK.
	C82	Shade, J., Gortler, S., He, L., and Szeliski, R. Layered Depth Images. In Proc. of SIGGRAPH, 1998.
	C83	Sillion, F. and Drettakis, G. Feature-based Control of Visibility Error: A Multi-resolution Clustering Algorithm for Global Illumination. In Proc. SIGGRAPH, 1995.
	C84	Taylor, C., and Kriegman, D. 1992. Structure and Motion from Line Segments in Multiple Images
	C85	Technical Academy Award 1998. http://alvyray.com/awards/awardsmain.htm
	C86	Tolba, O. 2001. A Projective Approach to Computer-Aided Drawing. PhD thesis, Massachusetts Institute of Technology.
	C87	Tolba, O., Dorsey, J., and McMillan, L. 2001. A Projective Drawing System. In 2001 ACM Symposium on Interactive 3D Graphics, pp. 25–34. ISBN 1-58113-292-1.
	C88	Tomasi, C., and Manduchi, R. Bilateral Filtering for Gray and Color Images. In IEEE Int. Conf. on Computer Vision, 1998.
	C89	Tumblin, J., and Turk, G. 1999. LCIS: A Boundary Hierarchy for Detail-Preserving Contrast Reduction. In Proceedings of SIGGRAPH 1999, ACM SIGGRAPH / Addison Wesley Longman, Los Angeles, California, Computer Graphics Proceedings, Annual Conference Series, pp. 83–90. ISBN 0-20148-560-5.
	C90	Wang, J. Y. A. and Adelson, E. H. Representing Moving Images with Layers. IEEE Trans. on Image Processing, 3(5):625–638, 1994.
	C91	Ward, "The RADIANCE Lighting Simulation and Rendering System", Proceedings of SIGGRAPH 1994, ACM SIGGRAPH/ACM Press, Orlando, Florida, Computer Graphics Proceedings, Annual Conference Series, 459-472. ISBN 0-089791-667-0 (1994).
	C92	Ward, "Measuring and Modeling Anisotropic Reflection", Computer Graphics, 26, 2, pp. 265-272 (July 1992).
	C93	Ward, "Real Pixels", Graphics Gems II, Academic Press, Boston, pp. 80–83. ISBN 0-12-064481-9 (1991).
	C94	Williams, L. Image jets, level sets and silhouettes. Workshop on Image-Based Modeling and Rendering, http://www.graphics.stanford.edu/workshops/ibr98/ , March 1998.
	C95	Williams, L., 3d paint. In 1990 Symposium on Interactive 3D Graphics, vol. 24, pp. 225–233. 1990. ISBN 0-89791-351-5.
	C96	Yang et al., "Synthetic Aperture Camera Array", http://graphics.lcs.mit.edu/~jclang/cameraarray/cameraarray.htm
	C97	Yu, Y., and Malik, J. 1998. Recovering photometric properties of architectural scenes from photographs. In Proceedings of SIGGRAPH 1998, ACM SIGGRAPH / Addison Wesley, Orlando, Florida, Computer Graphics Proceedings, Annual Conference Series, pp. 207–218. ISBN 0-89791- 999-8.

FORM PTO – 1449		ATTORNEY DOCKET NO.: MOK-002
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Oh
		SERIAL NO.: 10/780,500 GROUP: Not yet assigned
		FILING DATE: February 17, 2004
	C98	Yu, Y., Deveci, P., Malik, J., and Hawkins, T. Inverse Global Illumination: Recovering Reflectance Models of Real Scenes from Photographs. Proc. of SIGGRAPH, 1999.
	C99	Zhang, H. 1999. A derivation of image-based rendering for conventional three-dimensional graphics. Journal of Graphics Tools 4, 2, pp. 27–36. ISSN 1086-76
	C100	Zhang, L., Dugas-Phocion, G., Samson, J.-S., and Seitz, S. 2001. Single View Modeling of Free-Form scenes. IEEE Computer Vision and Pattern Recognition.
EXAMINER		DATE CONSIDERED

3038658_1



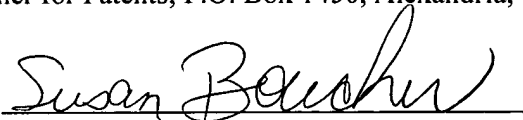
PATENT
Attorney Docket No. MOK-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Oh
SERIAL NO.: 10/780,500 GROUP NO.: Not yet assigned
FILING DATE: February 17, 2004 EXAMINER: Not yet assigned
TITLE: Modeling and Editing Imaging Panoramas

CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to Commissioner for Patents; P.O. Box 1450, Alexandria, VA 22313-1450 on this 22nd day of March, 2004.

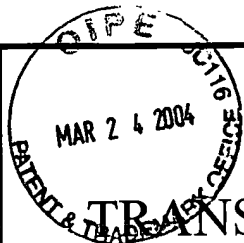

Susan Boucher

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

Submitted herewith is/are:

- Transmittal Form (1 pg.);
- Information Disclosure Statement (2 pgs.);
- PTO Form 1449 (7 pgs.);
- Copies of cited references (C1-C100); and
- A Return-Receipt Postcard.



TRANSMITTAL FORM

Application Serial Number	10/780,500
Filing Date	February 17, 2004
First Named Inventor	Oh
Group Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket No.	MOK-002
Patent No.	Not applicable
Issue Date	Not applicable

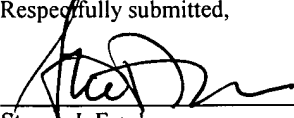
ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Check Attached <input type="checkbox"/> Copy of Fee Transmittal Form <input type="checkbox"/> Amendment/Response <input type="checkbox"/> Preliminary <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets ____] <input type="checkbox"/> Petition for Extension of Time <input checked="" type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Form PTO-1449 <input checked="" type="checkbox"/> Copies of IDS Citations (C1-C100) <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Sequence Listing submission <input type="checkbox"/> Paper Copy/CD <input type="checkbox"/> Computer Readable Copy <input type="checkbox"/> Statement verifying identity of above	<input type="checkbox"/> Copy of Notice to File Missing Parts of Application (PTO-1553) <input type="checkbox"/> Formal Drawing(s) <input type="checkbox"/> Request For Continued Examination (RCE) Transmittal <input type="checkbox"/> Power of Attorney (Revocation of Prior Powers) <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Executed Declaration and Power of Attorney for Utility or Design Patent Application <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> CD(s) for large table or computer program <input type="checkbox"/> Amendment After Allowance <input type="checkbox"/> Request for Certificate of Correction <input type="checkbox"/> Certificate of Correction (in duplicate)	<input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences <input type="checkbox"/> Appeal Brief (in triplicate) <input type="checkbox"/> Status Inquiry <input checked="" type="checkbox"/> Return Receipt Postcard <input checked="" type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8 <input type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8 <input type="checkbox"/> Additional Enclosure(s) (please identify below)
--	--	---

CORRESPONDENCE ADDRESS

Direct all correspondence to: Patent Administrator
 Testa, Hurwitz & Thibault, LLP
 High Street Tower
 125 High Street
 Boston, MA 02110
 Tel. No.: (617) 248-7000
 Fax No.: (617) 248-7100

SIGNATURE BLOCK

Respectfully submitted,

 Steven J. Frank
 Attorney for the Applicant
 Testa, Hurwitz & Thibault, LLP
 High Street Tower
 125 High Street
 Boston, MA 02110

Date: March 22, 2004
 Reg. No. 33,497
 Tel. No.: (617) 248-7176
 Fax No.: (617) 248-7100